

**METHOD AND APPARATUS FOR CONTROLLING THE DISSEMINATION OF
ROUTING INFORMATION ON A COMMUNICATION NETWORK**

ABSTRACT

The propagation of link state advertisements (LSAs) is limited by defining a propagation radius on the network, measured by sum of link cost, or using another metric. By limiting the distance a LSA will propagate on the network it is possible to limit LSA traffic on the network without defining areas on the network. This eliminates the need to name those areas and designate nodes as belonging to particular areas, which enables the nodes to be added on an ad-hoc basis without a centralized management structure. Additionally, this enables the nodes to be mobile on the network without requiring close monitoring and updating of area affiliation by the nodes. Further, not having areas on the network eliminates the requirement for area border routers to control link state advertisements, reduces or eliminates special intra-area communication protocol exchanges, and avoids potential congestion which may occur in connection with inter-area traffic.